

CLAIMS:

- 1 1. A method for managing data describing each of a
- 2 plurality of repetitive motions executed by a plurality
- 3 of individuals at a plurality of repetitive motion
- 4 stations located at a plurality of locations, the method
 - 5 comprising the steps of:
 - 6 receiving the data via a network from each of the
 - 7 plurality of stations;
 - 8 recording the data in a data storage device;
 - 9 receiving via the network from a requester at a
- 10 remote terminal a request for a selected portion of the
- 11 data; and
- 12 transmitting via the network to the requester at the
- 13 remote terminal the selected portion of the data.
 - 1 2. The method of Claim 1 wherein the requester is
 - 2 at least one of the individuals who executed the
 - 3 repetitive motions, at least one instructor responsible
 - 4 for instructing the individual who executed the
 - 5 repetitive motions, and another individual who has
 - 6 permission to access the data.
 - 1 3. The method of Claim 1 wherein the network
 - 2 comprises at least one of the Internet, an intranet, a
 - 3 local area network (LAN), a wide area network (WAN), a T1
 - 4 line, and satellite communication.

- 1 The method of Claim 1 wherein requester is the 2 individual who executed the repetitive motions, 3 network comprises at least one of the Internet, 4 intranet, a local area network (LAN), a wide area network 5 (WAN), a T1 line, and satellite communication, and the is 6 individual requesting the data from a computer 7 terminal located at the individual's residential home.
- 5. The method of Claim 1 wherein the repetitive motions include at least one of a previous motion executed by the individual, a motion template executed by the individual, and a motion generated by an expert.
- 1 6. The method of Claim 1 further comprising:
 2 designating for a selected individual a model motion
 3 to be a motion template for the selected individual;
 4 recording the template in the data storage device;
 5 and
- comparing repetitive motions of the selected individual against the motion template to determine at least one delta between the motion template and the executed repetitive motion.
- 7. The method of Claim 1 wherein the plurality of stations include at least two stations geographically separated from each other.
- 1 8. The method of Claim 1 further comprising:
- 2 designating for a selected individual a model motion
- 3 executed by the individual at a first station at a first

- 4 location to be a motion template for the selected
- 5 individual;
- 6 recording the motion template in the data storage
- 7 device;
- 8 executing a repetitive motion by the selected
- 9 individual at a second station at a second location
- 10 separated from the first station at the first location;
- 11 and
- 12 comparing executed repetitive motions of the
- 13 selected individual at the second station at the second
- 14 location against the motion template to determine at
- 15 least one delta between the motion template and the
- 16 executed repetitive motion.
 - 9. The method of Claim 1 further comprising:
 - designating for a selected individual a model motion
 - 3 to be a motion template for the selected individual;
 - 4 recording the motion template in the data storage
 - 5 device;
 - 6 comparing a executed repetitive motion of the
 - 7 selected individual against the motion template to
 - 8 determine at least one delta between the motion template
 - 9 and the executed repetitive motion; and
- 10 providing feedback describing the at least one delta
- 11 to the selected individual.
 - 1 10. The method of Claim 1 further comprising:
 - 2 designating for a selected individual a model motion
 - 3 to be a motion template for the selected individual;
 - 4 recording the motion template in the data storage
 - 5 device;

6 comparing an executed repetitive motion of the 7

individual against the motion template

- determine at least one delta between the motion template 8
- and the executed repetitive motion; 9
- 10 developing an individual feedback profile; and
- providing feedback in accordance with the individual 11
- 12 feedback profile describing the at least one delta to the
- selected individual. 13
 - 1 The method of Claim 1 further comprising:
 - 2 designating for a selected individual a model motion
- 3 to be a motion template for the selected individual;
- recording the motion template in the data storage 4
- 5 device;
- 6 comparing an executed repetitive motion of the
- 7 selected individual against the motion template
- determine at least one delta between the motion template 8
- and the executed repetitive motion; 9
- 10 developing an individual feedback profile indicating
- individual preference for the presence or absence of at 11
- 12 least one of positive feedback, negative feedback, visual
- feedback, audible feedback, verbal feedback, one or more 13
- 14 selected aspects of executed repetitive motion, and time
- 15 of the executed repetitive motion; and
- 16 providing feedback in accordance with the individual
- 17 feedback profile describing the at least one delta to the
- selected individual. 18

- 1 12. The method of Claim 1 further comprising
- 2 determining a monetary amount to pay to an instructor
- 3 each time an individual instructed by the instructor
- 4 practices the motion without the instructor.
- 1 13. The method of Claim 1 further comprising
- 2 compiling data from the plurality of individuals to
- 3 generate statistical data usable to manufacturers of
- 4 equipment and apparel used when executing the motions in
- 5 a selected sport.
- 1 14. The method of Claim 1 further comprising
- 2 compiling data from the plurality of individuals to
- 3 generate statistical data usable by manufacturers of at
- 4 least one of golf balls, golf shoes, golf clubs, golfing
- 5 apparel, golf grips, golf gloves, and golf teaching
- 6 apparatuses used for executing the motions, and wherein
- 7 the statistical data is accountable for individual
- 8 handicaps, including slices.
- 1 15. The method of Claim 1 further comprising:
- 2 compiling data from the plurality of individuals to
- 3 generate statistical data usable by manufacturers of
- 4 equipment and apparel used when executing the motions in
- 5 a selected sport, and wherein the statistical data is
- 6 accountable for individual handicaps;
- 7 compiling data for a particular individual to
- 8 generate statistical data usable by the particular
- 9 individual, and wherein the statistical data is

- 10 accountable for handicaps of the particular individual;
- 11 and
- 12 generating a recommendation of what equipment and
- 13 apparel the particular individual should purchase based
- 14 on statistical data generated for the particular
- 15 individual and for the statistical data generated for the
- 16 plurality of individuals.
 - 1 16. The method of Claim 1 further comprising:
 - 2 compiling data from the plurality of individuals to
 - 3 generate statistical data usable by manufacturers of at
 - 4 least one of golf balls, golf shoes, golf clubs, golfing
 - 5 apparel, golf grips, golf gloves, and golf teaching
- 6 apparatuses used for executing the motions, and wherein
- 7 the statistical data is accountable for individual
- 8 handicaps;
- 9 compiling data for a particular individual to
- 10 generate statistical data usable by the particular
- 11 individual, and wherein the statistical data is
- 12 accountable for handicaps of the particular individual;
- 13 and
- 14 generating a recommendation of what golf balls, golf
- 15 shoes, golf clubs, golfing apparel, golf grips, golf
- 16 gloves, and golf teaching apparatuses the particular
- 17 individual should purchase based on statistical data
- 18 generated for the particular individual and for the
- 19 statistical data generated for the plurality of
- 20 individuals.

- 1 17. The method of Claim 1 wherein the repetitive
- 2 motion is at least one of a golf swing, a basketball
- 3 shot, a baseball bat swing, a tennis swing, a bowling
- 4 ball swing, a baseball pitch, a gymnastic exercise, and
- 5 figure skating.
- 1 18. The method of Claim 1 for conducting a virtual
- 2 tournament between individuals of a selected portion of
- 3 the plurality of individuals, the method further
- 4 comprising:
- 5 selecting for each individual of the selected
- 6 portion of the plurality of individuals data describing
- 7 at least one motion, the data including performance
- 8 results of the at least one motion;
- 9 comparing for each individual of the selected
- 10 portion of the plurality of individuals the data
- 11 including performance results of the at least one motion
- 12 to determine which individual has the best performance
- 13 results from the at least one respective motion; and
- 14 identifying the individual of the selected portion
- 15 of the plurality of individuals having the best
- 16 performance results of the at least one respective motion
- 17 as the winner of the virtual tournament between
- 18 individuals of a selected portion of the plurality of
- 19 individuals.
 - 1 19. The method of Claim 1 for conducting a virtual
 - 2 tournament between individuals of a selected portion of
 - 3 the plurality of individuals, the method further
 - 4 comprising:

5 selecting for each individual of the selected

6 portion of the plurality of individuals data describing

7 at least one motion, the data including performance

- 8 results of the at least one motion;
- 9 comparing for each individual of the selected
- 10 portion of the plurality of individuals the data
- 11 including performance results of the at least one motion
- 12 to determine which individual has the best performance
- 13 results from the at least one respective motion;
- 14 identifying the individual of the selected portion
- 15 of the plurality of individuals having the best
- 16 performance results of the at least one respective motion
- 17 as the winner of the virtual tournament between
- 18 individuals of a selected portion of the plurality of
- 19 individuals; and
- 20 simulating an actual environment where the
- 21 repetitive motion is executed.
 - 1 20. The method of Claim 1 for managing a
 - 2 competition to determine which individual of a selected
 - 3 portion of the plurality of individuals has improved the
 - 4 most, the method further comprising:
 - 5 designating for each individual of the selected
 - 6 portion of the plurality of individuals a respective
 - 7 model motion to be a respective motion template;
 - 8 comparing at a first point in time for each
 - 9 individual of the selected portion of the plurality of
- 10 individuals at least one respective first executed
- 11 repetitive motion against a respective motion template to
- 12 determine at least one first respective delta between the

13 respective motion template and the respective first

14 executed repetitive motion;

15 comparing at a second point in time for each

16 individual of the selected portion of the plurality of

17 individuals at least one respective second executed

18 repetitive motion against a respective motion template to

19 determine at least one second respective delta between

20 the respective motion template and the respective

21 executed repetitive motion;

22 determining for each individual of the selected

23 portion of the plurality of individuals the respective

24 decrease from the respective first delta to the

25 respective second delta; and

identifying the individual of the selected portion

27 of the plurality of individuals having the maximum

28 decrease as the winner of the competition to determine

29 which individual of the selected portion of the plurality

30 of individuals has improved the most.

1 21. The method of Claim 1 for managing a

2 competition to determine which individual of a selected

3 portion of the plurality of individuals has been most

4 consistent in practicing repetitive motions, the method

5 further comprising:

6 designating for each individual of the selected

7 portion of the plurality of individuals a respective

8 model motion to be a respective motion template;

9 comparing at each of a plurality of points in time

10 for each individual of the selected portion of the

11 plurality of individuals at least one respective executed

12 repetitive motion against a respective motion template to

- 13 determine at least one respective delta between the
- 14 respective motion template and the respective executed
- 15 repetitive motion, thereby establishing a sequence of
- 16 deltas for each individual of the selected portion of the
- 17 plurality of individuals;
- 18 determining for each individual of the selected
- 19 portion of the plurality of individuals a respective
- 20 variance of respective deltas; and
- 21 identifying the individual of the selected portion
- 22 of the plurality of individuals having the least variance
- 23 as the winner of the competition to determine which
- 24 individual of a selected portion of the plurality of
- 25 individuals has been most consistent in practicing
- 26 repetitive motions.
 - 1 22. The method of Claim 1 for managing
 - 2 competition to determine which individual of a selected
 - 3 portion of the plurality of individuals is practicing
- 4 closest to a respective motion template, the method
- 5 further comprising:
- 6 designating for each individual of the selected
- 7 portion of the plurality of individuals a respective
- 8 model motion to be a respective motion template;
- 9 comparing for each individual of the selected
- 10 portion of the plurality of individuals at least one
- 11 respective executed repetitive motion against
- 12 respective motion template to determine at least one
- 13 respective delta between the respective motion template
- 14 and the respective executed repetitive motion; and
- identifying the individual of the selected portion
- 16 of the plurality of individuals having the least delta as

- 17 the winner of the competition to determine which
- 18 individual is practicing closest to a respective motion
- 19 template.

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- 23. A programmed digital computer for managing data describing each of a plurality of repetitive motions
- 2 describing each of a plurality of repetitive motions
- 3 executed by a plurality of individuals at a plurality of
- 4 repetitive motion stations located at a plurality of
- 5 locations, the programmed digital switch including a
- 6 computer program comprising:
- 7 computer program code for receiving the data
- 8 describing each repetitive motion of each of the
- 9 plurality of individuals at each of the plurality of
- 10 repetitive motion station at each of the plurality of
- 11 locations;
- 12 computer program code for recording the data in a
- 13 data storage device connected to each of the plurality of
- 14 repetitive motion stations located at each of the
- 15 plurality of locations;
- 16 computer program code for receiving through a
- 17 network from a requester a request for at least one
- 18 portion of the data; and
- 19 computer program code for transmitting through the
- 20 network to the requester the at least one portion of the
- 21 data.
 - 1 24. The computer of Claim 23 wherein the requester
 - 2 is one of the individual who executed the repetitive
 - 3 motions, an instructor responsible for instructing the
 - 4 individual who executed the repetitive motions, and
 - 5 another individual who has permission to access the data.

- 1 25. The computer of Claim 23 wherein the network
- 2 comprises at least one of the Internet, an intranet, a
- 3 local area network (LAN), a wide area network (WAN), a T1
- 4 line, and satellite communication.
- 1 26. The computer of Claim 23 wherein requester is
- 2 the individual who executed the repetitive motions, the
- 3 network comprises at least one of the Internet, an
- 4 intranet, a local area network (LAN), a wide area network
- 5 (WAN), a T1 line, and satellite communication, and the
- 6 request is generated by the individual from a computer
- 7 terminal located at the individual's residential home.
- 1 27. The computer of Claim 23 wherein the repetitive
- 2 motions include at least one of a previous motion
- 3 executed by the individual, a motion template executed by
- 4 the individual, and a motion generated by an expert.
- 1 28. The computer of Claim 23 further comprising:
- 2 computer program code for designating for a selected
- 3 individual a model motion to be a motion template for the
- 4 selected individual;
- 5 computer program code for recording the template in
- 6 the data storage device; and
- 7 computer program code for comparing executed
- 8 repetitive motion of the selected individual against the
- 9 motion template to determine at least one delta between
- 10 the motion template and the executed repetitive motion.

- 1 29. The computer of Claim 23 wherein the plurality
- 2 of stations include at least two stations geographically
- 3 separated from each other.
- 1 30. The computer of Claim 23 further comprising:
- 2 computer program code for designating for a selected
- 3 individual a model motion executed by the individual at a
- 4 first station at a first location to be a motion template
- 5 for the selected individual:
- 6 computer program code for recording the motion
- 7 template in the data storage device;
- 8 computer program code for executing a repetitive
- 9 motion by the first individual at a second station at a
- 10 second location separated from the first station at the
- 11 first location; and
- 12 computer program code for comparing executed
- 13 repetitive motion of the selected individual at the
- 14 second station at the second location against the motion
- 15 template to determine at least one delta between the
- 16 motion template and the executed repetitive motion.
 - 1 31. The computer of Claim 23 further comprising:
 - 2 computer program code for designating for a selected
 - 3 individual a model motion to be a motion template for the
 - 4 selected individual;
 - 5 computer program code for recording the motion
 - 6 template in the data storage device;
 - 7 computer program code for comparing an executed
 - 8 repetitive motion of the selected individual against the
 - 9 motion template to determine at least one delta between

- 10 the motion template and the executed repetitive motion;
- 11 and
- 12 computer program code for providing feedback
- 13 describing the at least one delta to the selected
- 14 individual.
- 1 32. The computer of Claim 23 further comprising:
- 2 computer program code for designating for a selected
- 3 individual a model motion to be a motion template for the
- 4 selected individual;
- 5 computer program code for recording the motion
- 6 template in the data storage device;
- 7 computer program code for comparing an executed
- 8 repetitive motion of the selected individual against the
- 9 motion template to determine at least one delta between
- 10 the motion template and the executed repetitive motion;
- 11 computer program code for developing an individual
- 12 feedback profile; and
- 13 computer program code for providing feedback in
- 14 accordance with the individual feedback profile
- 15 describing the at least one delta to the selected
- 16 individual.
- 1 33. The computer of Claim 23 further comprising:
- 2 computer program code for designating for a selected
- 3 individual a model motion to be a motion template for the
- 4 selected individual;
- 5 computer program code for recording the motion
- 6 template in the data storage device;
- 7 computer program code for comparing an executed
- repetitive motion of the selected individual against the

- 9 motion template to determine at least one delta between
- 10 the motion template and the executed repetitive motion;
- 11 computer program code for developing an individual
- 12 feedback profile indicating individual preference for the
- 13 presence or absence of at least one of positive feedback,
- 14 negative feedback, visual feedback, audible feedback,
- 15 verbal feedback, one or more selected aspects of the
- 16 executed repetitive motion, and time of the executed
- 17 repetitive motion; and
- 18 computer program code for providing feedback in
- 19 accordance with the individual feedback profile
- 20 describing the at least one delta to the selected
- 21 individual.
 - 1 34. The computer of Claim 23 further comprising
 - 2 computer program code for determining a monetary amount
 - 3 to pay to an instructor each time an individual
 - 4 instructed by the instructor practices the motion without
 - 5 the instructor.
 - 1 35. The computer of Claim 23 further comprising
 - 2 computer program code for compiling data from the
 - 3 plurality of individuals to generate statistical data
 - 4 usable by manufacturers of equipment and apparel used
 - 5 when executing the motions in a selected sport.

1 36. The computer of Claim 23 further comprising 2 computer program code for compiling data from 3 individuals to generate statistical data plurality of 4 usable by manufacturers of at least one of golf balls, 5 golf shoes, golf clubs, golfing apparel, golf grips, golf 6 gloves, and golf teaching apparatuses used for executing 7 motions, and wherein the statistical data is 8 accountable for individual handicaps, including slices.

- 1 37. The computer of Claim 23 further comprising:
- 2 computer program code for compiling data from the 3 plurality of individuals to generate statistical data 4 usable by manufacturers of equipment and apparel used 5 when executing the motions in a selected sport, 6 wherein the statistical data is accountable for 7 individual handicaps;
- 8 computer program code for compiling data for a 9 particular individual to generate statistical data usable 10 by the particular individual, and wherein the statistical 11 data is accountable for handicaps of the particular 12 individual; and
- 13 computer program code for generating a 14 recommendation of what equipment and apparel the 15 individual particular should purchase based statistical data generated for the particular individual 16 and for the statistical data generated for the plurality 17 of individuals. 18
 - 1 38. The computer of Claim 23 further comprising:

2 computer program code for compiling data from the

3 plurality of individuals to generate statistical data

4 usable by manufacturers of at least one of golf balls,

5 golf shoes, golf clubs, golfing apparel, golf grips, golf

gloves, and golf teaching apparatuses used for executing

7 the motions, and wherein the statistical data is

8 accountable for individual handicaps;

9 computer program code for compiling data for a

10 particular individual to generate statistical data usable

11 by the particular individual, and wherein the statistical

12 data is accountable for handicaps of the particular

13 individual; and

14 computer program code for generating a

15 recommendation of what golf balls, golf shoes, golf

16 clubs, golfing apparel, golf grips, golf gloves, and golf

17 teaching apparatuses the particular individual should

18 purchase based on statistical data generated for the

19 particular individual and for the statistical data

20 generated for the plurality of individuals.

1 39. The computer of Claim 23 wherein the repetitive

2 motion is at least one of a golf swing, a basketball

3 shot, a baseball bat swing, a tennis swing, a bowling

ball swing, a baseball pitch, a gymnastic exercise, and

5 figure skating.

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1 40. The computer of Claim 23 for conducting a

2 virtual tournament between individuals of a selected

3 portion of the plurality of individuals, the computer

4 further comprising:

5 computer program code for selecting for each

6 individual of the selected portion of the plurality of

7 individuals data describing at least one motion, the data

8 including performance results of the at least one motion;

9 computer program code for comparing for each

10 individual of the selected portion of the plurality of

11 individuals the data including performance results of the

12 at least one motion to determine which individual of the

13 selected portion of the plurality of individuals has the

14 best performance results of the at least one respective

15 motion; and

16 computer program code for identifying the individual

17 of the selected portion of the plurality of individuals

18 having the best performance results of the at least one

19 respective motion as the winner of the virtual tournament

20 between individuals of a selected portion of the

21 plurality of individuals.

1 41. The computer of Claim 23 for managing a

2 competition to determine which individual of a selected

3 portion of the plurality of individuals has improved the

4 most, the computer further comprising:

5 computer program code for designating for each

6 individual of the selected portion of the plurality of

7 individuals a respective model motion to be a respective

8 motion template;

9 computer program code for comparing at a first point

10 in time for each individual of the selected portion of

11 the plurality of individuals at least one respective

12 first executed repetitive motion against a respective

13 motion template to determine at least one first

14 respective delta between the respective motion template

15 and the respective first executed repetitive motion;

16 computer program code for comparing at a second

17 point in time for each individual of the selected portion

18 of the plurality of individuals at least one respective

19 second executed repetitive motion against a respective

20 motion template to determine at least one second

21 respective delta between the respective motion template

22 and the respective executed repetitive motion;

23 computer program code for determining for each

24 individual of the selected portion of the plurality of

25 individuals the respective decrease from the respective

26 first delta to the respective second delta; and

27 computer program code for identifying the individual

28 of the selected portion of the plurality of individuals

29 having the maximum decrease as the winner of the

30 competition to determine which individual of the selected

31 portion of the plurality of individuals has improved the

32 most.

1 42. The computer of Claim 23 for managing

2 competition to determine which individual of a selected

3 portion of the plurality of individuals has been most

4 consistent in practicing repetitive motions, the computer

5 further comprising:

6 computer program code for designating for each

7 individual of the selected portion of the plurality of

8 individuals a respective model motion to be a respective.

9 motion template;

10 computer program code for comparing at each of a

11 plurality of points in time for each individual of the

- 12 selected portion of the plurality of individuals at least
- 13 one respective executed repetitive motion against a
- 14 respective motion template to determine at least one
- 15 respective delta between the respective motion template
- 16 and the respective executed repetitive motion, thereby
- 17 establishing a sequence of deltas for each individual of
- 18 the selected portion of the plurality of individuals;
- 19 computer program code for determining for each
- 20 individual of the selected portion of the plurality of
- 21 individuals a respective variance of respective deltas;
- 22 and
- computer program code for identifying the individual
- 24 of the selected portion of the plurality of individuals
- 25 having the least variance as the winner of the
- 26 competition to determine which individual of a selected
- 27 portion of the plurality of individuals has been most
- 28 consistent in practicing repetitive motions.
 - 1 43. The computer of Claim 23 for managing a
 - 2 competition to determine which individual of a selected
 - 3 portion of the plurality of individuals is practicing
 - 4 closest to a respective motion template, the computer
 - 5 further comprising:
 - 6 computer program code for designating for each
 - 7 individual of the selected portion of the plurality of
 - 8 individuals a respective model motion to be a respective
 - 9 motion template;
- 10 computer program code for comparing for each
- 11 individual of the selected portion of the plurality of
- 12 individuals at least one respective executed repetitive
- 13 motion against a respective motion template to determine

- 14 at least one respective delta between the respective
- 15 motion template and the respective executed repetitive
- 16 motion to determine which individual of the selected
- 17 portion of the plurality of individuals has the least
- 18 delta; and
- computer program code for identifying the individual
- 20 of the selected portion of the plurality of individuals
- 21 having the least delta as the winner of the competition
- 22 to determine which individual is practicing closest to a
- 23 respective motion template.

- 44. A computer program product for managing data describing each of a plurality of repetitive motions executed by a plurality of individuals at a plurality of repetitive motion stations located at a plurality of locations, the computer program product having a medium with a computer program embodied thereon, the computer program comprising:
- computer program code for receiving 8 the data describing each repetitive motion οf each 9 plurality of individuals at each of the plurality of 10 11 repetitive motion station at each of the plurality of 12 locations;
- 13 computer program code for recording the data in a 14 data storage device connected to each of the plurality of 15 repetitive motion stations located at each of the 16 plurality of locations;
- 17 computer program code for receiving through a 18 network from a requester a request for at least one 19 portion of the data; and
- computer program code for transmitting through the network to the requester the at least one portion of the data..
 - 1 The computer program product of Claim 2 wherein the requester is one of the individual who repetitive motions, 3 executed the an instructor responsible for instructing the individual who executed 4 the repetitive motions, and another individual who has 5 6 permission to access the data.

- 1 46. The computer program product of Claim 44
- 2 wherein the network comprises at least one of the
- 3 Internet, an intranet, a local area network (LAN), a wide
- 4 area network (WAN), a T1 line, and satellite
- 5 communication.
- 1 47. The computer program product of Claim 44
- 2 wherein requester is the individual who executed the
- 3 repetitive motions, the network comprises at least one of
- 4 the Internet, an intranet, a local area network (LAN), a
- 5 wide area network (WAN), a T1 line, and satellite
- 6 communication, and the request is generated by the
- 7 individual from a computer terminal located at the
- 8 individual's residential home.
- 1 48. The computer program product of Claim 44
- 2 wherein the repetitive motions include at least one of a
- 3 previous motion executed by the individual, a motion
- 4 template executed by the individual, and a motion
- 5 generated by an expert.
- 1 49. The computer program product of Claim 44
- 2 further comprising:
- 3 computer program code for designating for a selected
- 4 individual a model motion to be a motion template for the
- 5 selected individual;
- 6 computer program code for recording the template in
- 7 the data storage device; and
- 8 computer program code for comparing executed
- 9 repetitive motions of the selected individual against the

- 10 motion template to determine at least one delta between
- 11 the motion template and the executed repetitive motion.
 - 1 50. The computer program product of Claim 44
 - 2 wherein the plurality of stations include at least two
 - 3 stations geographically separated from each other.
 - 1 51. The computer program product of Claim 44
 - 2 further comprising:
 - 3 computer program code for designating for a selected
 - 4 individual a model motion executed by the individual at a
- 5 first station at a first location to be a motion template
- 6 for the selected individual;
- 7 computer program code for recording the motion
- 8 template in the data storage device;
- 9 computer program code for executing a repetitive
- 10 motion by the first individual at a second station at a
- 11 second location separated from the first station at the
- 12 first location; and
- 13 computer program code for comparing executed
- 14 repetitive motions of the selected individual at the
- 15 second station at the second location against the motion
- 16 template to determine at least one delta between the
- 17 motion template and the executed repetitive motion.
 - 1 52. The computer program product of Claim 44
 - 2 further comprising:
 - 3 computer program code for designating for a selected
 - 4 individual a model motion to be a motion template for the
 - 5 selected individual;

- 6 computer program code for recording the motion 7 template in the data storage device;
- 8 computer program code for comparing an executed
- 9 repetitive motion of the selected individual against the
- 10 motion template to determine at least one delta between
- 11 the motion template and the executed repetitive motion;
- 12 and
- 13 computer program code for providing feedback
- 14 describing the at least one delta to the selected
- 15 individual.
 - 1 53. The computer program product of Claim 44
 - 2 further comprising:
 - 3 computer program code for designating for a selected
- 4 individual a model motion to be a motion template for the
- 5 selected individual;
- 6 computer program code for recording the motion
- 7 template in the data storage device;
- 8 computer program code for comparing an executed
- 9 repetitive motion of the selected individual against the
- 10 motion template to determine at least one delta between
- 11 the motion template and the executed repetitive motion;
- 12 computer program code for developing an individual
- 13 feedback profile; and
- 14 computer program code for providing feedback in
- 15 accordance with the individual feedback profile
- 16 describing the at least one delta to the selected
- 17 individual.
 - 1 54. The computer program product of Claim 44
 - 2 further comprising:

3 computer program code for designating for a selected

4 individual a model motion to be a motion template for the

- 5 selected individual;
- 6 computer program code for recording the motion
- 7 template in the data storage device;
- 8 computer program code for comparing an executed
- 9 repetitive motion of the selected individual against the
- 10 motion template to determine at least one delta between
- 11 the motion template and the executed repetitive motion;
- computer program code for developing an individual
- 13 feedback profile indicating individual preference for the
- 14 presence or absence of at least one of positive feedback,
- 15 negative feedback, visual feedback, audible feedback,
- 16 verbal feedback, one or more selected aspects of the
- 17 executed repetitive motion, and time of the executed
- 18 repetitive motion; and
- 19 computer program code for providing feedback in
- 20 accordance with the individual feedback profile
- 21 describing the at least one delta to the selected
- 22 individual.
 - 1 55. The computer program product of Claim 44
 - 2 further comprising computer program code for determining
 - 3 a monetary amount to pay to an instructor each time an
 - 4 individual instructed by the instructor practices the
 - 5 motion without the instructor.

- 1 The computer program product of Claim further comprising computer program code for compiling 2 the plurality of 3 from individuals to generate 4 statistical data usable by manufacturers of equipment and 5 apparel used when executing the motions in a selected 6 sport.
- 1 The computer program product of Claim further comprising computer program code for compiling 2 from the plurality of individuals to generate 3 statistical data usable by manufacturers of at least one 4 of golf balls, golf shoes, golf clubs, golfing apparel, 5 6 golf grips, golf gloves, and golf teaching apparatuses 7 used for executing the motions, and wherein 8 statistical data is accountable for individual handicaps, 9 including slices.
- 1 58. The computer program product of Claim 44 further comprising:
- computer program code for compiling data from the 3 4 plurality of individuals to generate statistical data 5 usable by manufacturers of equipment and apparel used 6 when executing the motions in a selected sport, 7 wherein ' the statistical data is accountable for individual handicaps; 8
- 9 computer program code for compiling data for a 10 particular individual to generate statistical data usable 11 by the particular individual, and wherein the statistical 12 data is accountable for handicaps of the particular 13 individual; and

14 computer program code for generating 15 recommendation of what equipment and apparel 16 particular individual should purchase based statistical data generated for the particular individual 17 and for the statistical data generated for the plurality 18 of individuals. 19

- 1 59. The computer program product of Claim 44 2 further comprising:
- 3 computer program code for compiling data from the plurality of individuals to generate statistical data 4 5 usable by manufacturers of at least one of golf balls, 6 golf shoes, golf clubs, golfing apparel, golf grips, golf 7 gloves, and golf teaching apparatuses used for executing 8 the motions, and wherein the statistical accountable for individual handicaps; 9
- computer program code for compiling data for a particular individual to generate statistical data usable by the particular individual, and wherein the statistical data is accountable for handicaps of the particular individual; and
- 15 computer program code for generating recommendation of what golf balls, golf shoes, and golf 16 17 clubs golfing apparel, golf grips, golf gloves, and golf 18 teaching apparatuses the particular individual should purchase based on statistical data generated for the 19 particular individual and for the statistical 20 data generated for the plurality of individuals. 21

- 1 60. The computer program product of Claim 44 2 wherein the repetitive motion is at least one of a golf 3 swing, a basketball shot, a baseball bat swing, a tennis 4 swing, a bowling ball swing, a baseball pitch, a 5 gymnastic exercise, and figure skating.
- 1 61. The computer program product of Claim 44 for 2 conducting a virtual tournament between individuals of a 3 selected portion of the plurality of individuals, the 4 computer program product further comprising:
- computer program code for selecting for each individual of the selected portion of the plurality of individuals data describing at least one motion, the data including performance results of the at least one motion;
- for each 9 computer program code for comparing 10 individual of the selected portion of the plurality of 11 individuals the data including performance results of the at least one motion to determine which individual of the 12 selected portion of the plurality of individuals has the 13 best performance results of the at least one respective 14 15 motion; and
- 16 computer program code for identifying the individual
 17 of the selected portion of the plurality of individuals
 18 having the best performance results of the at least one
 19 respective motion as the winner of the virtual tournament
 20 between individuals of a selected portion of the
 21 plurality of individuals.

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1 62. The computer program product of Claim 44 for 2 managing a competition to determine which individual of a 3 selected portion of the plurality of individuals has 4 improved the most, the computer program product further 5 comprising:

computer program code for designating for each individual of the selected portion of the plurality of individuals a respective model motion to be a respective motion template;

computer program code for comparing at a first point 10 11 in time for each individual of the selected portion of the plurality of individuals at least one respective 12 13 first executed repetitive motion against a respective 14 motion template to determine at least one 15 respective delta between the respective motion template 16 and the respective first executed repetitive motion;

computer program code for comparing at a second point in time for each individual of the selected portion of the plurality of individuals at least one respective second executed repetitive motion against a respective motion template to determine at least one second respective delta between the respective motion template and the respective executed repetitive motion;

computer program code for determining for each individual of the selected portion of the plurality of individuals the respective decrease from the respective first delta to the respective second delta; and

computer program code for identifying the individual of the selected portion of the plurality of individuals having the maximum decrease as the winner of the

- 31 competition to determine which individual of the selected
- 32 portion of the plurality of individuals has improved the
- 33 most.
 - 1 63. The computer program product of Claim 44 for
 - 2 managing a competition to determine which individual of a
 - 3 selected portion of the plurality of individuals has been
- 4 most consistent in practicing repetitive motions, the
- 5 computer program product further comprising:
- 6 computer program code for designating for each
- 7 individual of the selected portion of the plurality of
- 8 individuals a respective model motion to be a respective
- 9 motion template;
- 10 computer program code for comparing at each of a
- 11 plurality of points in time for each individual of the
- 12 selected portion of the plurality of individuals at least
- 13 one respective executed repetitive motion against
- 14 respective motion template to determine at least one
- 15 respective delta between the respective motion template
- 16 and the respective executed repetitive motion, thereby
- 17 establishing a sequence of deltas for each individual of
- 18 the selected portion of the plurality of individuals;
- 19 computer program code for determining for each
- 20 individual of the selected portion of the plurality of
- 21 individuals a respective variance of respective deltas;
- 22 and
- 23 computer program code for identifying the individual
- 24 of the selected portion of the plurality of individuals
- 25 having the least variance as the winner of the
- 26 competition to determine which individual of a selected

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27 portion of the plurality of individuals has been most

28 consistent in practicing repetitive motions.

1 64. The computer program product of Claim 44 for 2 managing a competition to determine which individual of a 3 selected portion of the plurality of individuals is 4 practicing closest to a respective motion template, the 5 computer program product further comprising:

computer program code for designating for each individual of the selected portion of the plurality of individuals a respective model motion to be a respective motion template;

computer program code for comparing for each individual of the selected portion of the plurality of individuals at least one respective executed repetitive motion against a respective motion template to determine at least one respective delta between the respective motion template and the respective executed repetitive motion to determine which individual of the selected portion of the plurality of individuals has the least delta; and

computer program code for identifying the individual of the selected portion of the plurality of individuals having the least delta as the winner of the competition to determine which individual is practicing closest to a respective motion template. 65. A system for managing repetitive motion data describing each of a plurality of repetitive motions executed by a plurality of individuals at a plurality of repetitive motion stations located at a plurality of locations, the system comprising:

6 a communications network;

7 a data processing system connected to the network;

8 data storage device connected data to the 9 processing system, the data storage device configured for storing data received from, and retrieving 10 11 data requested by, the data processing system;

at least one repetitive motion station connected to the network and configured for generating and transmitting repetitive motion data via the network to the data processing system configured for processing the data and storing the data in the storage device; and

at least one remote terminal connected to the network and configured for sending messages via the network to the data processing system for the retrieval of repetitive motion data from the data storage device.

1 66. The system of Claim 65 wherein the requester is 2 of the individual who executed the repetitive motions, an instructor responsible for instructing the 3 4 individual who executed the repetitive motions, another individual who has permission to access the data. 5

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- 1 67. The system of Claim 65 wherein the network
- 2 comprises at least one of the Internet, an intranet, a
- 3 local area network (LAN), a wide area network (WAN), a T1
- 4 line, and satellite communication.
- 1 68. The system of Claim 65 wherein the at least one
- 2 remote terminal is a computer terminal located at a
- 3 residential home.
- 1 69. The system of Claim 65 wherein the repetitive
- 2 motions include at least one of a previous motion
- 3 executed by the individual, a motion template executed by
- 4 the individual, and a motion generated by an expert.
- 1 70. The system of Claim 65, wherein the data
- 2 processing system further comprises memory comprising:
- 3 computer program code for designating for a selected
- 4 individual a model motion to be a motion template for the
- 5 selected individual;
- 6 computer program code for recording the template in
- 7 the data storage device; and
- 8 computer program code for comparing executed
- 9 repetitive motions of the selected individual against the
- 10 motion template to determine at least one delta between
- 11 the motion template and the executed repetitive motion.
 - 1 71. The system of Claim 65 wherein the plurality of
 - 2 stations include at least two stations geographically
 - 3 separated from each other.

1 72. The system of Claim 65, wherein the data 2 processing system further comprises memory comprising:

computer program code for designating for a selected individual a model motion executed by the individual at a first station at a first location to be a motion template for the selected individual;

7 computer program code for recording the motion 8 template in the data storage device;

9 computer program code for executing a repetitive 10 motion by the first individual at a second station at a 11 second location separated from the first station at the 12 first location; and

computer program code for comparing executed repetitive motions of the selected individual at the second station at the second location against the motion template to determine at least one delta between the motion template and the executed repetitive motion.

1 73. The system of Claim 65, wherein the data 2 processing system further comprises memory comprising:

computer program code for designating for a selected individual a model motion to be a motion template for the selected individual;

6 computer program code for recording the motion 7 template in the data storage device;

8 computer program code for comparing an executed 9 repetitive motion of the selected individual against the 10 motion template to determine at least one delta between 11 the motion template and the executed repetitive motion; 12 and

- 13 computer program code for providing feedback
- 14 describing the at least one delta to the selected
- 15 individual.
- 1 74. The system of Claim 65, wherein the data
- 2 processing system further comprises memory comprising:
- 3 computer program code for designating for a selected
- 4 individual a model motion to be a motion template for the
- 5 selected individual;
- 6 computer program code for recording the motion
- 7 template in the data storage device;
- 8 computer program code for comparing an executed
- 9 repetitive motion of the selected individual against the
- 10 motion template to determine at least one delta between
- 11 the motion template and the executed repetitive motion;
- 12 computer program code for developing an individual
- 13 feedback profile; and
- 14 computer program code for providing feedback in
- 15 accordance with the individual feedback profile
- 16 describing the at least one delta to the selected
- 17 individual.
- 1 75. The system of $Claim_{\hat{i}}$ 65, wherein the data
- 2 processing system further comprises memory comprising:
- 3 computer program code for designating for a selected
- 4 individual a model motion to be a motion template for the
- 5 selected individual;
- 6 computer program code for recording the motion
- 7 template in the data storage device;
- 8 computer program code for comparing an executed
- 9 repetitive motion of the selected individual against the

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10 motion template to determine at least one delta between

11 the motion template and the executed repetitive motion;

computer program code for developing an individual

13 feedback profile indicating individual preference for the

14 presence or absence of at least one of positive feedback,

15 negative feedback, visual feedback, audible feedback,

16 verbal feedback, one or more selected aspects of the

17 executed repetitive motion, and time of the executed

18 repetitive motion; and

19 computer program code for providing feedback in

20 accordance with the individual feedback profile

21 describing the at least one delta to the selected

22 individual.

1 76. The system of Claim 65, wherein the data

2 processing system further comprises memory comprising

3 computer program code for determining a monetary amount

4 to pay to an instructor each time an individual

5 instructed by the instructor practices the motion without

6 the instructor.

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1 77. The system of Claim 65, wherein the data

2 processing system further comprises memory comprising

computer program code for compiling data from the

4 plurality of individuals to generate statistical data

5 usable by manufacturers of equipment and apparel used

6 when executing the motions in a selected sport.

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1 The system of Claim 65, wherein 2 processing system further comprises memory comprising computer program code for compiling 3 data from the individuals to generate statistical data 4 plurality of usable by manufacturers of at least one of golf balls, 5 6 golf shoes, golf clubs, golfing apparel, golf grips, golf 7 gloves, golf teaching apparatuses used for executing the motions, and wherein the statistical data is accountable 8 9 for individual handicaps, including slices.

1 79. The system of Claim 65, wherein the data 2 processing system further comprises memory comprising:

computer program code for compiling data from the plurality of individuals to generate statistical data usable by manufacturers of equipment and apparel used when executing the motions in a selected sport, and wherein the statistical data is accountable for individual handicaps;

9 computer program code for compiling data for a 10 particular individual to generate statistical data usable 11 by the particular individual, and wherein the statistical 12 data is accountable for handicaps of the particular 13 individual; and

for 14 computer program code generating 15 recommendation of what equipment the particular individual should purchase based on statistical data 16 17 generated for the particular individual and for the 18 statistical data generated for the plurality 19 individuals.

1 80. The system of Claim 65, wherein the data 2 processing system further comprises memory comprising:

computer program code for compiling data from the 3 plurality of individuals to generate statistical data 4 usable by manufacturers of at least one of golf balls, 5 golf shoes, golf clubs, golfing apparel, golf grips, golf 6 7 gloves, and golf teaching apparatuses used for executing the motions, and wherein the statistical data 8 9 accountable for individual handicaps;

computer program code for compiling data for a particular individual to generate statistical data usable by the particular individual, and wherein the statistical data is accountable for handicaps of the particular individual; and

code 15 computer program for generating 16 recommendation of what golf balls, golf shoes, golf 17 clubs, golfing apparel, golf grips, golf gloves, and golf teaching apparatuses the particular individual 18 purchase based on statistical data generated for the 19 particular individual 20 and for the statistical . 21 generated for the plurality of individuals.

- 1 81. The system of Claim 65 wherein the repetitive 2 motion is at least one of a golf swing, a basketball 3 shot, a baseball bat swing, a tennis swing, a bowling 4 ball swing, a baseball pitch, a gymnastic exercise, and 5 figure skating.
- 1 82. The system of Claim 65, wherein the data 2 processing system further comprises memory comprising:

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3 computer program code for selecting for 4 individual of the selected portion of the plurality of 5 individuals data describing at least one motion, the data 6 including performance results of the at least one motion;

7 computer program code for comparing for 8 individual of the selected portion of the plurality of individuals the data including performance results of the 9 10 at least one motion to determine which individual of the 11 selected portion of the plurality of individuals has the 12 best performance results of the at least one respective 13 motion; and

computer program code for identifying the individual 14 15 of the selected portion of the plurality of individuals 16 having the best performance results of the at least one 17 respective motion as the winner of the virtual tournament 18 between individuals of a selected portion of plurality of individuals. 19

83. The system of Claim 65, wherein the data processing system further comprises memory comprising:

computer program code for designating 3 4 individual of the selected portion of the plurality of 5 individuals a respective model motion to be a respective 6 motion template;

computer program code for comparing at a first point in time for each individual of the selected portion of the plurality of individuals at least one respective first executed repetitive motion against a respective template to motion determine at least one first respective delta between the respective motion template

13 and the respective first executed repetitive motion;

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14 computer program code for comparing at a second point in time for each individual of the selected portion 15 16 of the plurality of individuals at least one respective 17 second executed repetitive motion against a respective 18 motion template to determine at least one respective delta between the respective motion template 19 20 and the respective executed repetitive motion;

computer program code for determining for each individual of the selected portion of the plurality of individuals the respective decrease from the respective first delta to the respective second delta; and

computer program code for identifying the individual of the selected portion of the plurality of individuals having the maximum decrease as the winner of the competition to determine which individual of the selected portion of the plurality of individuals has improved the most.

1 84. The system of Claim 65, wherein the data 2 processing system further comprises memory comprising:

computer program code for designating for each individual of the selected portion of the plurality of individuals a respective model motion to be a respective motion template;

computer program code for comparing at each of a plurality of points in time for each individual of the selected portion of the plurality of individuals at least one respective executed repetitive motion against a respective motion template to determine at least one respective delta between the respective motion template and the respective executed repetitive motion, thereby

14 establishing a sequence of deltas for each individual of

15 the selected portion of the plurality of individuals;

16 computer program code for determining for each

17 individual of the selected portion of the plurality of

18 individuals a respective variance of respective deltas;

19 and

20 computer program code for identifying the individual

21 of the selected portion of the plurality of individuals

22 having the least variance as the winner of the

23 competition to determine which individual of a selected

24 portion of the plurality of individuals has been most

25 consistent in practicing repetitive motions.

1 85. The system of Claim 65, wherein the data 2 processing system further comprises memory comprising:

computer program code for designating for each individual of the selected portion of the plurality of individuals a respective model motion to be a respective motion template;

7 computer program code for comparing for each

8 individual of the selected portion of the plurality of

9 individuals at least one respective executed repetitive

10 motion against a respective motion template to determine

11 at least one respective delta between the respective

12 motion template and the respective executed repetitive

13 motion to determine which individual of the selected

14 portion of the plurality of individuals has the least

15 delta; and

16 computer program code for identifying the individual

17 of the selected portion of the plurality of individuals

18 having the least delta as the winner of the competition

- 19 to determine which individual is practicing closest to a
- 20 respective motion template.

1 86. A method for managing data, the method 2 comprising the steps of:

monitoring and generating data describing at least one first repetitive motion executed by at least one first individual at at least one first repetitive motion station located at at least one first location;

monitoring and generating data describing at least one second repetitive motion executed by at least one second individual at at least one second repetitive motion station located at at least one second location geographically separated from the at least one first location;

transmitting the data describing the at least one first and second repetitive motions from the first and second practice bays via a network to a network server computer having a data storage device; and

17 recording the data to the data storage device.